Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of:	)	
	)	
Digital Audio Broadcasting Systems	)	
And Their Impact on Terrestrial	)	MM Docket No. 99-325
Radio Broadcast Service	)	
	)	

COMMENTS OF PUBLIC KNOWLEDGE, CONSUMERS UNION, AND CONSUMER FEDERATION OF AMERICA

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Public Knowledge, Consumers Union, and Consumer Federation of America (hereafter, the Consumer Group Coalition) hereby submit these comments in response to the Commission's Further Notice of Proposed Rulemaking and Notice of Inquiry (*NOI*)[1] in the above referenced docket. The *NOI* seeks comment on the Recording Industry Association of America's (RIAA) request that the Commission impose copy-control technological mandates on new digital audio radio broadcasting.[2] For the reasons discussed below, the Consumer Group Coalition opposes the adoption of such mandates, which are aimed at imposing unprecedented restrictions on the ways that the radio audience might listen to, and otherwise use, free over-the-air radio broadcast content.

[1] In the Matter of Digital Audio Broadcasting Systems and Their Impact on Terrestrial Radio Broadcast Service, Federal Communications Commission, *Further Notice of Proposed Rulemaking and Notice of Inquiry*, MM Docket No. 99-325 (April 15, 2004) [hereinafter *NOI*].
[2] *NOI* at ¶¶ 67-70.

I. INTRODUCTION AND SUMMARY

The Consumer Group Coalition supports the Commission's goal of promoting digital audio broadcasting (DAB) and believes that attractive DAB services can expand the radio marketplace. Precisely because we support this goal, we argue here that the Commission must forbear from imposing copy-protection/content-protection technologies on free over-the-air radio broadcasting and/or on consumer devices built to receive such broadcasts. There is no case for saddling digital radio broadcasting with technological restrictions. Furthermore, unnecessary restrictions on DAB technologies will harm the development of innovative DAB products and delay consumer adoption of the technology.

Although the Consumer Group Coalition respects the Commission's desire to conduct a preliminary investigation of any possible problems associated with DAB and copyright infringement, we argue here that there is no evidence that radio broadcasts are a significant source of infringement. Nor is there evidence that DAB poses any threat to the music industry distribution model. Thus, there is no support for the claim that DAB presents a problem requiring a copy-protection technology mandate, or any content-related technology mandate.

We further note that the data rate associated with digital audio broadcasting, an index of audio quality, is more than an order of magnitude lower than that of audio compact discs, and significantly lower than the data rates of MP3 files and other popular compressed digital audio formats. Although the quality of digital audio radio may be somewhat better, and more reliable,

than that of some previous radio transmission formats, DAB is not of sufficiently high quality to pose any concrete threat to music-industry distribution models.[3]

The RIAA request for regulation seeks what would effectively be a ban on otherwise-legal devices and lawful home recording. As such, this request centers on copyright law and policy, which are beyond the jurisdiction of the Commission. To put the matter plainly, the Commission has no authority to halt activities that Congress and the courts have established as lawful. Nor does the Commission have the jurisdiction to mandate that copy controls be built into DAB devices.

Properly, this proceeding should focus on digital audio broadcast standards and development; it should not be diverted by misconceived fears of copyright infringement. By forbearing to impose copy-protection controls on DAB, the Commission can help ensure that this new service is free to grow and develop in accordance with the marketplace, copyright law, and legitimate consumer expectations.

II. THE COMMISSION LACKS JURISDICTION TO IMPLEMENT DAB CONTENT CONTROL.

Nothing in the Communications Act gives the FCC explicit to implement copy controls on free over-the-air digital radio broadcasts or to implement technology controls within DAB receivers and related devices.

In the absence of any explicit statutory authority to permit the Commission to impose radio content protection mandates, the Commission cannot rely solely on its "public interest" authority under Section 4(i) of the Communications Act.[4] As FCC Chairman Michael Powell has written: ***"It is important to emphasize that section 4(i) is not a stand-alone basis of***

[3] As we discuss in Section III, *infra*, the fact that music is broadcast in a "digital" format does not entail that the broadcast is significantly higher in quality than music broadcast in traditional analog formats.
[4] 47 U.S.C. § 154(i).

authority and cannot be read in isolation. It is more akin to a 'necessary and proper' clause. Section 4(i)'s authority must be 'reasonably ancillary' to other express provisions."[5] The public-interest authority does not give the Commission broad license to regulate any and all remotely colorable issues.[6] Where there is some clear statutory "hook," the Commission may consider the "public interest" in furtherance of its statutory authority. Such public-interest authority does not, however, independently grant the Commission jurisdiction to create an entirely new and unfounded regulatory regime.[7]

The Commission asks whether there is a parallel between DAB content control and the recently adopted broadcast-flag scheme.[8] Clearly, there is no such parallel. In the broadcast flag proceeding, for example, the Commission's stated concern was the indiscriminate Internet redistribution of digital television content.[9] In this proceeding, in contrast, the RIAA has expressed concerns far broader than that of indiscriminate Internet redistribution. More importantly, the RIAA is asking that the Commission consider imposing new constraints on the lawful act of recording broadcast radio, in spite of the fact that citizens' right to record radio

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[5] 15 F.C.C.R. at 15,276 (Powell, dissenting). The D.C. Circuit agreed with Chairman Powell's statement. *See Motion Picture Ass'n of Am. v. FCC,* 309 F.3d 796, 806 (D.C. Cir. 2002).

[6] *See Motion Picture Ass'n of Am. v. FCC,* 309 F.3d 796, 806 (D.C. Cir. 2002). *See National Association for the Advancement of Colored People v. Federal Power Commission,* 425 U.S. 662, 669 (1976). (This Court's cases have consistently held that the use of the words "public interest" in a regulatory statute is not a broad license to promote the general public welfare. Rather, the words take meaning from the purposes of the regulatory legislation."); *See also New Haven Inclusion Cases*, 399 U.S. 392, 432, (1970); *National Broadcasting Co. v. United States*, 319 U.S. 190, 216 (1943). In the Matter of Policy Regarding Character Qualifications In Broadcast Licensing Amendment of Rules of Broadcast Practice and Procedure Relating to Written Responses to Commission Inquiries and the Making of Misrepresentations to the Commission by Permittees and Licensees, 102 FCC 2d 1179, ¶51 (1986).

[7] *See Motion Picture Ass'n of Am. v. FCC,* 309 F.3d 796, 806 (D.C. Cir. 2002). *See National Association for the Advancement of Colored People v. Federal Power Commission,* 425 U.S. 662, 669 (1976). *See also*, In the Matter of Policy Regarding Character Qualifications In Broadcast Licensing Amendment of Rules of Broadcast Practice and Procedure Relating to Written Responses to Commission Inquiries and the Making of Misrepresentations to the Commission by Permittees and Licensees, 102 FCC 2d 1179, ¶51 (1986) ("while it may be appropriate for the Commission to consider the relationship of the policies underlying other Federal statutes to effectuation of the policies behind the Communications Act, the inclusion of a public interest standard in the Communications Act did not automatically give the Commission 'either the authority or the duty to execute numerous other laws.'") *citing National Association for the Advancement of Colored People v. Federal Power Commission,* 425 U.S. 662, 669 (1976).

[8] *NOI* at ¶ 69.

[9] Digital Broadcast Copy Protection, 18 FCC Rcd 23,550, 23,552-54 (2003).

broadcasts at home is well-established and, furthermore, explicitly permitted under our copyright laws. Thus, any Commission regulation that might restrict the home recording of DAB not only goes beyond Commission jurisdiction, but also is contrary to the intent of Congress as expressed in the Copyright Act.

Furthermore, without acceding that the Commission had the jurisdiction to implement the broadcast flag regime for digital television, we note that the Commission could at least attempt to claim some authority under Section 336 of the Communications Act to regulate the DTV signal and incidental services (even if it could not similarly claim statutory authority to require that digital media devices obey the flag). With regard to DAB, however, the Commission lacks even that weak claim of statutory authority to initiate a regulatory regime for content protection.

Finally, while the digital-television broadcast-flag proceeding is at least nominally tied to the transition to digital television service and the important public interest of the return of valuable spectrum, there is no similar interest associated with DAB. The transition to digital audio radio is not one that requires new equipment for the entire audience (legacy radio receivers will continue to work), nor will it result in recovered spectrum. DAB content control reaches into copyright law and consumer electronics standards wholly unrelated to the success of DAB, its impact on terrestrial radio services, or signal transmission standards.[10]

[10] We note that the radio broadcasters, who might more reasonably argue that unlawful home recording of DAB content (e.g., recording that excludes advertising), have not requested DAB content control. It is curious that the RIAA suggests that free over-the-air broadcasting is in danger while radio broadcasters have not been quick to raise such a concern.

III. THERE IS NO EVIDENCE OF ANY COPYRIGHT INFRINGEMENT ASSOCIATED WITH DAB OR EXISTING BROADCAST FORMATS.

The Commission's only evidence that DAB poses a problem is a letter from the RIAA predicting ***possible*** problems related to DAB receivers.[11] The RIAA is unable to point to any specific DAB technology or consumer activity related to DAB that threatens the intellectual property interests of recording artists or radio broadcasters. Instead, the RIAA suggests what is "likely," or "may be possible."[12] None of these predictions rise to the level of evidence that would require FCC action, even if such action was within the Commission's jurisdiction. Furthermore, an examination of current radio, Internet, and digital broadcasts reveals that there is no significant copyright infringement problem associated with broadcast radio.

Consumers already have significant ability and rights[13] to record content from broadcast radio. In addition to the well-established tradition of using analog cassettes to record radio broadcasts, which are easily converted to digital formats, consumers can also record broadcast radio with a variety of digital technologies. Digital audio tape (DAT)[14] is a digital recording format that has been widely available for over 15 years.[15] DAT technology enables the transfer of content on DAT to other media, such as computer hard drives, via digital and analog outputs. Despite digital-to-digital recording and transfer technology, DAT has not led to mass copyright infringement.

In addition to DAT, consumers can purchase inexpensive AM/FM computer tuner cards. These cards enable consumers to listen to radio broadcasts through their personal computers and

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[11] *See* Letter from Theodore Frank, Counsel for the RIAA to Mary Beth Murphy, Chief, Policy Division, Media Bureau, FCC, Oct. 2, 2003; *see also* Letter from Cary Sherman, President, RIAA to Gary Shapiro, Consumer Electronics Association, Apr. 14, 2004.
[12] *NOI* at ¶ 67.
[13] *See supra* Section V.
[14] "DAT" *at* en.wikipedia.org/wiki/DAT
[15] DAT does include serial copying restrictions as mandated by Congress in the AHRA, but this does not limit the number of copies possible from a master or prevent copying or transfer via digital outputs.

complimentary, often packaged, software enables consumers to make recordings of selected broadcasts. Even though analog radio broadcasts do not contain metadata, this software permits consumers to effectively filter and select the songs that they wish to record. Handheld AM/FM receivers and recording devices are also available. With these devices, consumers can record analog broadcasts and store them in digital formats.[16] Despite the presence and availability of these inexpensive radio recording devices, there is no evidence that the digital recording and digitizing of analog radio has led to significant copyright infringement.

There are also numerous digital music outlets on the Internet and recording technologies that enable personal recording. Widely available software permits consumers to use personal computers to record selected webcast songs.[17] In addition, digital music channels are commonplace in satellite and digital cable packages. These providers offer nearly 100 digital music channels which consumers can record using TiVo, ReplayTV, and personal computer-based tuners coupled with recording software. Despite the presence of these digital "casting" technologies, there is no evidence to suggest that webcasting or digital music via Multi-channel Video Programming Distributors (MVPDs) have created a significant copyright infringement problem.[18]

It is also important for the Commission to recognize that if DAB posed any significant threat to copyright owners, that threat would already have manifested itself. Digital audio radio is widely available in the United Kingdom and some reports put consumer acceptance of this technology at a rate of 100,000 receivers sold per month.[19] Despite the large number of

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[16] *See e.g.*, Radio YourWay AM/FM Radio Recorder, *at* www.pogoproducts.com/radio_yourway.html/.
[17] *See e.g.* StreamRipper, *at* http://streamripper.sourceforge.net/; RadioLover, *at* http://www.bitcartel.com/radiolover/.
[18] This is especially telling because the variety of music offered on these outlets is significantly greater than broadcast radio.
[19] *NOI*, Fn 132 (*citing* Dudgie Stanford, *Government Should Plan to End Analog Radio, U.K. Digital Radio Groups Says*, **Communications Daily**, Jan. 26, 2004, at 9.).

digital radio listeners in the UK, and digital radio devices,[20] there is absolutely no evidence that the technology has given rise to the problems that the RIAA has said it is concerned with. In fact, DAB providers in the UK even tout the recording, pause, and playback advantages that DAB offers.[21]

Some of the expressed fears about possible infringement stem from the allegation that the audio available through DAB will be "near-CD quality."[22] There are two problems with this claim. First, the Commission overstates the quality of audio available over DAB. The bit-rate of a digital audio stream, as well as the format of the stream, determines the quality of the audio received. The theoretical maximum bit-rate of the proposed DAB system is 98 kilobits per second for FM stations[23] and even lower for AM stations.[24] This data rate is less than one tenth that of "raw" CD audio, and significantly lower than the data rate of — and hence the quality provided by — currently available digital audio formats, including the popular MP3 format. Second, the proposed system does not provide all of the original capabilities of analog radio,[25] or of other publicly available digital audio sources.[26]

Ultimately there is no reason to think that DAB will present a problem where other analog and digital technologies (often superior technologies) have not. Simply put, if the RIAA's fears were warranted, evidence of a significant problem associated with broadcast radio and digital streaming should already exist. There is no such evidence.

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[20] *See id.*; *See also* BBC Digital Radio, *at* www.bbc.co.uk/digitalradio/news/ (reporting on the pause, record, and playback function of DAB devices and compiling articles chronicling the adoption of DAB).
[21] *See id.*
[22] *NOI* at ¶ 2.
[23] Paul J. Peyla*, The Structure and Generation of Robust Waveforms for FM In-Band On-Channel Digital Broadcasting,* at 13, *available at* www.ibiquity.com/technology/pdf/Waveforms_FM.pdf.
[24] Steven A. Johnson, *The Structure and Generation of Robust Waveforms for AM In-Band On-Channel Digital Broadcasting,* at 6, *available at* http://www.ibiquity.com/technology/pdf/Waveforms_AM.pdf.
[25] The AM system in the FCC proposal does not support stereo sound – something which both analog AM radio and all other popular audio formats provide.
[26] *See e.g.*, NPR (www.npr.org/) and the BBC (www.bbc.co.uk/radio/). These broadcasters, as well as the vast majority of internet-only and combination internet/broadcast stations (www.shoutcast.com/ and www.radio-locator.com/) offer free, stereo, high-quality audio streams.

IV. DAB CONTENT CONTROL WOULD BE INEFFECTIVE, WOULD HINDER CONSUMER ADOPTION OF DIGITAL RADIO, AND WOULD NOT ADDRESS ANY POSSIBLE REDISTRIBUTION PROBLEM.

No one has proposed any specific technology or mandate that would constrain consumer aggregation or copying of digital radio content. Nevertheless, in the absence of a specific proposal, we may draw some reasonable conclusions about the likely ineffectiveness of, and burdens imposed by, a copy-control technology mandate, based on the current state of content-control technologies.

First, there is a strong risk that any technology mandate, even though ineffective, will nevertheless significantly harm the development of DAB devices, thus slowing consumer adoption of this new format. It must be remembered that the consumer expectations of radio, including the ability to record radio broadcasting, are well-established and grounded in the law.[27] Both the interoperability of devices and consumer expectations regarding the ability to make recordings at home are put at risk by technology mandates aimed at inhibiting consumer copying or aggregation of music.[28]

Second, any technology mandate would be ineffective in preventing indiscriminate redistribution of content over the Internet. There is no possible way that any technology allowing consumers to listen to music can be made to prevent recording – any tuner that can be attached to speakers can also be attached to devices that can redigitize and/or retransmit audio content. Even if one argued that such redigitization of music would require special expertise (the Consumer Group Coalition would dispute such a claim), it nevertheless follows that only one

[27] *See supra* Section III.

[28] We note in passing that while the mere transfer of recorded content from one device to another is not likely to rise to the level of copyright infringement, there is no fundamental technical distinction between such a transfer and the retransmission of digital content to networks such as the Internet

expert is required to make a redigitized song available to a thousand or even one million amateurs.

The Consumer Group Coalition does not dispute that there is significant unauthorized copying of copyrighted content on the Internet and elsewhere. Instead, the Coalition takes issue with the unsupported claim that DAB will somehow make those problems worse and that content control for DAB might ameliorate some present or future problem. File sharing on peer-to-peer networks of copyrighted music is typically the result of copies made from compact discs – copies of higher quality than will be available under the Ibiquity standard[29] – and the infringement most likely to harm the recording industry involves pre-release materials. No content-control restrictions on DAB will address these problems.

The Commission should forbear from imposing content-control technologies in a market where such action is likely to be ineffective and to produce unintended and undesirable results. The Commission will not serve the public or the industries it regulates if it facilitates the removal of long-established consumer prerogatives regarding radio and blocks new consumer uses arising from digital audio radio. The only guaranteed outcome of DAB content control is consumer confusion, restrictions on technology development, and ultimately the likely failure of DAB as an alternative broadcast medium.

V. DAB CONTENT CONTROL CONTRAVENES THE EXPRESS WILL OF CONGRESS AND THE COURTS.

Congress and the courts have clearly addressed personal home recording of broadcasts through the Copyright Act and various decisions. In each instance, Congress and the courts have established that home recording is lawful.

[29] *See supra* Section III.

The Audio Home Recording Act (AHRA)[30] covers any "digital audio recording device," "digital audio interface device," and "digital audio recording medium." Under the AHRA, the manufacture of digital recording devices and the use of these devices for non-commercial purposes are explicitly permitted. At least some, if not all, of the DAB devices of concern to the RIAA will fall under the AHRA. As such, these devices would be subject to royalty obligations, the inclusion of the "Serial Copyright Management System (SCMS)," and in return would benefit from a statutory exclusion from copyright infringement liability.[31] Congress has not granted the Commission authority to override its explicit compromise for digital recording devices in the AHRA. To the extent that the RIAA is asking that the Commission mandate controls for AHRA covered devices, it is asking the wrong body – changes to the AHRA should be addressed to Congress.

Congress and the courts have spoken to the issue of non-commercial personal recording. The Copyright Act explicitly permits home recording not only in the AHRA, but also in 17 U.S.C. § 107, which permits "fair use" copying – or copying without authorization.[32] One example of this is provided in *Sony v. Universal City Studios*,[33] which held that recording broadcast television content for later viewing – "time-shifting" – is lawful under copyright law. Much of the recording consumers may engage in with a DAB device falls under the ambit of fair use. To the extent that there is debate about which of these uses are fair uses, that is not an issue for the FCC to decide. Fair use determinations are matters for the courts.

In addition to the royalty levied against devices covered by the AHRA, copyright law provides remedies for copyright holders for acts of copyright infringement. Assuming that the

[30] 17 U.S.C. § 1001 *et seq.*
[31] *Id*.
[32] 17 U.S.C. § 107
[33] 464 U.S. 417 (1984).

RIAA wishes only to halt activities that run afoul of copyright law, they have ample ability to pursue copyright infringers under current law.

With the AHRA, Congress struck a balance between copyright owners' concerns and consumers and manufacturers of digital recording devices. The music industry receives a royalty from covered devices and media. Should the Commission alter the functioning of these devices or limit home recording, the balance Congress created would be improperly shifted in favor of copyright holders. In fact, the RIAA's suggestion that there should be a "buy button" on DAB devices is antithetical to the AHRA.[34] The music industry might benefit from the royalty but consumers would not utilize their "taxed" equipment to the extent Congress intended. To the extent the RIAA is asking the Commission to address equipment and activities covered by the AHRA, Congress has already addressed their concerns with the creation of a royalty and implementation of the SCMS.

Even apart from the compromise Congress built into the AHRA — a compromise designed to ameliorate any problem for content owners that might be associated with home recording — the Consumer Group Coalition notes that DAB will not alter copyright holders' ability to pursue copyright infringers. We further note that the recording industry has successfully utilized copyright laws to pursue infringers trading files on peer-to-peer networks.[35] Should DAB become the source of the unlawful use of copyrighted music, there is no reason to assume that copyright holders will not continue to use the same laws they are currently utilizing to seek relief.

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[34] Letter from Cary Sherman, President, RIAA to Gary Shapiro, Consumer Electronics Association, Apr. 14, 2004.

[35] *See e.g.* John Borland, *RIAA threat may be slowing file swapping,* **CNET News.com** (July 14, 2003), *available at* news.com.com/2100-1027_3-1025684.html; Erin Joyce, *RIAA's Subpoena Strategy is Chilling Downloads: NPD*, **siliconvalley.internet.com** (Aug. 21, 2003), *available at* http://siliconvalley.internet.com/news/article.php/3066851; *See also* Lee Rainie et al., *The state of music downloading and file-sharing online*, The Pew Internet Project and Comscore Media Metrix (Apr. 2004), *available at* http://www.pewinternet.org/pdfs/PIP_Filesharing_April_04.pdf.

VI. CONCLUSION

We support the Commission's desire to move DAB forward and to create a new medium for broadcast radio. To move digital radio forward effectively, and create an attractive marketplace, the Commission must resist unsupported requests to burden this technology with unnecessary limitations.

DAB content control would only hinder technology development and discourage consumer adoption. Furthermore, the Commission has no authority to override the prerogatives of Congress and the courts that interpret copyright law. Even if the Commission had some authority to address DAB content control, there is no evidence to suggest that DAB presents a threat to copyright holders. As our past comments have encouraged, the Commission must respect the historical balances and compromises of copyright law while ensuring that new technologies can flourish without unnecessary restraints on consumers.

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